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U.S. DEPARTMENT OF COMMERCE PATENT AND

ATTORNEY'S DOCKET NUMBER

**TRANSMITTAL LETTER TO THE UNITED STATES
DESIGNATED/ELECTED OFFICE (DO/EO/US)
CONCERNING A FILING UNDER 35 U.S.C. § 371**

449122026100

U.S. APPLICATION NO. (if known, see 37 CFR 1.5)

10/089318
Not yet assigned

INTERNATIONAL APPLICATION NO.

INTERNATIONAL FILING DATE

PRIORITY DATE CLAIMED

PCT/DE00/03328

September 25, 2000

September 29, 1999

TITLE OF INVENTION

METHOD AND DEVICE FOR SWITCHING A CONNECTION IN A COMMUNICATION NETWORK

APPLICANT(S) FOR DO/EO/US

Franz EGGER et al.

Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:

1. ☒ This is a **FIRST** submission of items concerning a filing under 35 U.S.C. 371.
2. ☐ This is a **SECOND** or **SUBSEQUENT** submission of items concerning a filing under 35 U.S.C. 371.
3. ☐ This is an express request to begin national examination procedures (35 U.S.C. 371(f)). The submission must include items (5), (6), (9) and (21) indicated below.
4. ☒ The US has been elected by the expiration of 19 months from the priority date (PCT Article 31).
5. ☒ A copy of the International Application as filed (35 U.S.C. 371(c)(2))
 - a. ☒ is attached hereto (required only if not communicated by the International Bureau).
 - b. ☒ has been communicated by the International Bureau.
 - c. ☐ is not required, as the application was filed in the United States Receiving Office (RO/US).
6. ☒ An English language translation of the International Application under PCT Article 19 (35 U.S.C. 371(c)(2)).
 - a. ☒ is attached hereto.
 - b. ☐ has been previously submitted under 35 U.S.C. 154(d)(4).
7. ☐ Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371(c)(3)).
 - a. ☐ are attached hereto (required only if not communicated by the International Bureau).
 - b. ☐ have been communicated by the International Bureau.
 - c. ☐ have not been made; however, the time limit for making such amendments has NOT expired.
 - d. ☐ have not been made and will not be made.
8. ☐ An English language translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)).
9. ☐ An oath or declaration of the inventor(s) (35 U.S.C. 371(c)(4)).
10. ☐ An English language translation of the annexes to the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371(c)(5)).

Items 11. to 16. below concern document(s) or information included:

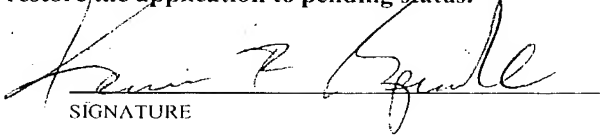
11. ☒ An Information Disclosure Statement under 37 CFR 1.97 and 1.98.
12. ☐ An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included.
13. ☒ A **FIRST** preliminary amendment.
14. ☐ A **SECOND** or **SUBSEQUENT** preliminary amendment.
15. ☒ A substitute specification.
16. ☐ A change of power of attorney and/or address letter.
17. ☐ A computer-readable form of the sequence listing in accordance with PCT Rule 13ter.2 and 35 U.S.C. 1.821 - 1.825.
18. ☐ A second copy of the published international application under 35 U.S.C. 154(d)(4).
19. ☐ A second copy of the English language translation of the international application under 35 U.S.C. 154(d)(4).
20. ☒ Other items: 1) Application Data Sheet; 2) Int'l Search Report; 3) IPER; 4) Return receipt postcard.

CERTIFICATE OF HAND DELIVERY

hereby certify that this correspondence is being hand filed with the United States Patent and Trademark Office in Washington, D.C. on March 29, 2002.

Melissa Garton
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U.S. APPLICATION NO. (if known, see 37 CFR 1.5) Not yet assigned 10/089318		INTERNATIONAL APPLICATION NO. PCT/DE00/03328		ATTORNEY DOCKET NO. 449122026100	
21. <input checked="" type="checkbox"/> The following fees are submitted: BASIC NATIONAL FEE (37 CFR 1.492(a)(1)-(5)): Neither international preliminary examination fee (37 CFR 1.482) nor international search fee (37 CFR 1.445(a)(2)) paid to USPTO and International Search Report not prepared by the EPO or JPO.....\$1,040.00 International preliminary examination fee (37 CFR 1.482) not paid to USPTO but International Search Report prepared by the EPO or JPO.....\$890.00 International preliminary examination fee (37 CFR 1.482) not paid to USPTO but international search fee (37 CFR 1.445(a)(2)) paid to USPTO.....\$740.00 International preliminary examination fee (37 CFR 1.482) paid to USPTO but all claims did not satisfy provision of PCT Article 33(1)-(4)\$710.00 International preliminary examination fee (37 CFR 1.482) paid to USPTO and all claims satisfied provisions of PCT Article 33(1)-(4)\$100.00				CALCULATIONS PTO USE ONLY	
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SEND ALL CORRESPONDENCE TO: Kevin R. Spivak Morrison & Foerster LLP 2000 Pennsylvania Avenue, N.W. Washington, D.C. 20006-1888					
 SIGNATURE Kevin R. Spivak Registration No. 43,148 March 29, 2002					

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I hereby certify that this correspondence is being hand filed with the United States Patent and Trademark Office in Washington, D.C. on March 29, 2002.

Melissa Garton

In the application of:

For: METHOD AND DEVICE FOR
SWITCHING A CONNECTION IN
A COMMUNICATION NETWORK

Group Art Unit: Not yet assigned

Commissioner for Patents
Washington, D.C. 20231

Prior to examination on the merits, please amend this application as follows:

1. (Amended) A method for switching a connection between two subscribers of a communication network with a common signaling channel which is independent of information channels and with transit exchanges having at least one switching network and associated line trunk groups, the switching occurring after a request from outside of the communication network, comprising:

transmitting a control signal on the common signaling channel such that a connection to a first of the two subscribers is switched through from a first of the information channels allocated to one another, and

a connection is switched through to a second of the two subscribers from a second of the information channels allocated to one another; and

forwarding a terminal signaling of the connection to the first subscriber of the connection to the second subscriber via the common signaling channel, and forwarding a terminal signaling of the connection to the second subscriber of the connection to the first subscriber via the common signaling channel.

2. (Amended) The method as claimed in claim 1, wherein the signaling on the common signaling channel is in accordance with the ITU-T signaling system No. 7.
3. (Amended) The method as claimed in claim 2, wherein the signaling messages of an ISDN User Part are transmitted from the first connection to the second connection and from the second connection to the first connection via the ITU-T signaling system No. 7.
4. (Amended) The method as claimed in claim 1, wherein PCM30 transmission links are used as inputs.
5. (Amended) The method as claimed in claim 1, wherein PCM24 transmission links are used as inputs.
6. (Amended) The method as claimed in claim 1, wherein the control signal is transmitted via an existing controller of the transit exchange.
7. (Amended) The method as claimed in claim 1, wherein a connection after a request from another communication network is initiated by a program installed on a network server which is connected to the other communication network.
8. (Amended) The method as claimed in claim 7, wherein the other communication network is the Internet.

9. (Amended) A device in a transit exchange for switching a connection between two subscribers of a communication network with a common signaling channel which is independent of information channels and with transit exchanges having at least one switching network and associated line trunk groups, the switching occurring after a request from outside of the communication network, comprising:

at least one connection between two inputs for transmission links at the transit exchange by a data line and permanent allocation of at least one pair of information channels; and

a controller connected to the common signaling channel and which conducts on the common signaling channel a control signal having content that a connection is present on one information channel of the information channels allocated to one another, which connection is switched through to a first of the two subscribers, and a connection is present on the second information channel of the information channels allocated to one another, which connection is switched through to a second of the two subscribers, and which forwards the terminal signaling of the connection to the first subscriber to the connection to the second subscriber and from the second subscriber to the first subscriber.

10. (Amended) The device as claimed in claim 9, characterized in that the controller uses the signaling protocol according to the ITU-T signaling system No. 7.

11. (Amended) The device as claimed in claim 10, wherein the controller transmits the end-to-end signaling messages of the ISDN User Part (ISUP) from one connection to the other connection.

12. (Amended) The device as claimed in claim 9, wherein the inputs are those for PCM30 transmission links.


13. (Amended) The device as claimed in claim 9, wherein the inputs are those for PCM24 transmission links.

14. (Amended) The device as claimed in claim 9, wherein the controller is an existing controller of the transit exchange.

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Attached hereto is a marked-up version of the changes made to the claims by the current amendment. The attached page is captioned **“Version with markings to show changes made”**.

In the unlikely event that the transmittal letter is separated from this document and the Patent Office determines that an extension and/or other relief is required, applicant petitions for any required relief including extensions of time and authorizes the Commissioner to charge the cost of such petitions and/or other fees due in connection with the filing of this document to **Deposit Account No. 03-1952** referencing docket no. 449122026100. However, the Commissioner is not authorized to charge the cost of the issue fee to the Deposit Account.


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2. (Amended) The method as claimed in claim 1, ~~characterized in that~~ **wherein** the signaling on the common signaling channel (6) is effected in accordance with the ITU-T signaling system No. 7.
3. (Amended) The method as claimed in claim 2, ~~characterized in that~~ **wherein** the signaling messages of ~~the~~ **an** ISDN User Part (ISUP) are transmitted from the first connection to the second connection and conversely **from the second connection to the first connection** via the ITU-T signaling system No. 7.
4. (Amended) The method as claimed in ~~one of claims 1 to 3,~~ characterized in that, as inputs, those for **claim 1, wherein** PCM30 transmission links are used **as inputs**.
5. (Amended) The method as claimed in ~~one of claims 1 to 3,~~ characterized in that, as inputs, those for **claim 1, wherein** PCM24 transmission links are used **as inputs**.
6. (Amended) The method as claimed in ~~one of claims 1 to 5,~~ characterized in that **claim 1, wherein** the control signal is transmitted via an existing controller (21) of the transit exchange.
7. (Amended) The method as claimed in ~~one of the preceding claims,~~ characterized in that **claim 1, wherein** a connection after a request from another communication network is initiated by a program installed on a network server (13) which is connected to ~~this~~ **the** other communication network.
8. (Amended) The method as claimed in claim 7, ~~characterized in that~~ **wherein** the other communication network is the Internet.
9. (Amended) A device in a transit exchange (3) for switching a connection between two subscribers (7, 8) of a communication network with a common signaling channel (6) which is independent of ~~the~~ information channels (5, 5a, 5b) and with transit exchanges (3) ~~consisting of~~ **in each case having** at least one switching network (4) and associated line trunk groups (17), the

switching being effected occurring after a request from outside of the communication network, comprising a):

at least one connection between two inputs for transmission links at the transit exchange by means of a data line (12) and permanent allocation of at least one pair of information channels(5a, 5b); and

b) A a controller (10) (~~CtD controller~~) which is connected to the common signaling channel (6) and which conducts on the common signaling channel (6) a control signal having the content that a connection is present on one information channel (5a) of the information channels (5a, 5b) ~~in each case permanently~~ allocated to one another, which connection ~~must be~~ is switched through to ~~one subscriber (7), and that~~ a first of the two subscribers, and a connection is present on the second information channel (5b) of the information channels (5a, 5b) ~~permanently~~ allocated to one another, which connection ~~must be~~ is switched through to the a second subscriber (8) of the two subscribers, and which forwards the terminal signaling of the connection to the first subscriber (7) to the connection to the second subscriber (8) and ~~conversely. and from the second subscriber to the first subscriber.~~

10. (Amended) The device as claimed in claim 9, characterized in that the controller (10) uses the signaling protocol according to the ITU-T signaling system No. 7.

11. (Amended) The device as claimed in claim 10, ~~characterized in that~~ wherein the controller (10) transmits the end-to-end signaling messages of the ISDN User Part (ISUP) from one connection to the other ~~one and conversely~~ connection.

12. (Amended) The device as claimed in ~~one of claims 9 to 11, characterized in that~~ claim 9, wherein the inputs are those for PCM30 transmission links.

13. (Amended) The device as claimed in ~~one of claims 9 to 11, characterized in that~~ claim 9, wherein the inputs are those for PCM24 transmission links.

14. (Amended) The device as claimed in ~~one of claims 9 to 13, characterized in that~~
claim 9, wherein the controller (10) ~~(CTD controller)~~ is an existing controller of the transit
exchange(3).

15. (Amended) The device as claimed in ~~one of claims 12 to 14, characterized in that~~
claim 12, wherein the transit exchange (3) is a transit exchange (3) of the EWSD system and the
inputs are connected by two accesses for PCM lines (22) in each case being connected at one
line trunk group(2) ~~(LTG)~~.

16. (Amended) The device as claimed in claim 15, ~~characterized in that~~ **wherein** the
controller (10) ~~(CTD controller)~~ is the is a group processor of the line trunk group(2).

17. (Amended) The device as claimed in ~~one of claims 9 to 16, characterized in that~~
claim 9, wherein the controller (10) is connected to a network server (13) which, ~~in turn,~~ is
connected to another communication network ~~in order to~~ initiate the connection by a program on
~~this~~ **the** network server (13) after a request from the other communication network.

18. (Amended) The device as claimed in claim 17, ~~characterized in that~~ **wherein** the other
communication network is the Internet.

In the Abstract:

Please replace the Abstract with the substitute Abstract attached hereto.

METHOD AND DEVICE FOR SWITCHING A CONNECTION IN A COMMUNICATION NETWORK

Abstract

In a communication network with a common signaling channel which is independent of the information channels, two inputs for transmission links at a transit exchange are connected by a data line. A controller, by means of a control signal on the common signaling channel, causes a connection to be switched through from one input to the first subscriber and from the second input to the second subscriber. The terminal signaling of the connections to the subscribers is transmitted alternatingly.

METHOD AND DEVICE FOR SWITCHING A CONNECTION IN A
COMMUNICATION NETWORK

CLAIM FOR PRIORITY

- 5 This application claims priority to International
Application No. PCT/DE00/03328 which was filed in the
German language on September 25, 2000.

TECHNICAL FIELD OF THE INVENTION

- 10 The present invention relates to a method and device
for switching a connection between two subscribers of a
communication network, and in particular, for switching
a connection from an exchange of the communication
15 signal transmission functions of the communication
network.

BACKGROUND OF THE INVENTION

- A connection between two subscribers of a communication
20 network can be initiated by the two subscribers being
called separately from a special terminal located
outside the communication network, using a computer as
automatic operator. As soon as a connection exists to
both subscribers and the special terminal, the
25 information signals and the control signals for service
indicators, if any, are then transmitted by this
terminal from one connection to the other and
conversely. Such a switching method is used in
telephone networks in call centers. The disadvantageous
30 factor is the relatively complex implementation and the
necessary capacity for high performance required from
the special terminal.

- Such switching of a connection in telephone networks is
35 of particular interest for the function of "click to
dial" out of the Internet. "Click to dial" is an offer
in the Internet in which a user of the Internet is
provided with the possibility of setting up a
connection directly by instruction between two

Figure 1 shows in accordance with the prior art the switching of a connection in a communication network by a computer connected to the communication network as terminal which is used as automatic operator 9. The communication network transit exchanges 3 and some access exchanges 4. An exchange center can have both functions and can be both transit exchange 3 and access exchange 4. The transit exchanges are connected to one another by means of transmission links which have at least one information channel 5 and at least one separate signaling channel 6. Figure 1 shows the connection between a first subscriber 7 and a second subscriber 8 by the automatic operator 9. The automatic operator 9 first dials both subscribers 7, 8 in two separate connections via two terminal lines 14. In the example shown, both connections initially take the same path. From the access exchange 4 of the automatic operator 9, they first reach the same transit exchange 3. Depending on the subscriber 7, 8 dialed, the connections can also take separate paths through the communication network after the access exchange 4 to which the automatic operator 9 is connected. In the transit exchange 3, the two connections are switched through completely independently as two different ones. This happens by the information channels 5 and signaling channels 6 being conducted via line trunk groups 2 in the transit exchange 3 and being switched through in a switching network 1 according to the control signals in the signaling channels 6.

If the two connections to the first subscriber 7 and second subscriber 8 have been established, the automatic operator 9 connects the two connections.

35 SUMMARY OF THE INVENTION

In one embodiment of the invention, there is a method for switching a connection between two subscribers of a communication network with a common signaling channel which is independent of the

information channels and with transit exchanges having at least one switching occurring network and associated line trunk groups, the switching being effected after a request from outside of the communication network. The method includes, for example, connecting two inputs for transmission links at a transit exchange by a data line and permanently allocating at least one pair of information channels, transmitting a control signal on the common signaling channel such that a connection to the first subscriber is switched through from one information channel of the information channels in each case allocated to one another, and a connection is switched through to the second subscriber from the second information channel of the information channels allocated to one another, and forwarding a terminal signaling of the connection to the first subscriber to the connection to the second subscriber via the common signaling channel, and forwarding a terminal signaling of the connection to the second subscriber to the connection to the first subscriber via the common signaling channel.

In one aspect of the invention, the signaling on the common signaling channel is in accordance with the ITU-T signaling system No. 7.

In another aspect of the invention, the signaling messages of an ISDN User Part (ISUP) are transmitted from the first connection to the second connection and from the second connection to the first connection via the ITU-T signaling system No. 7.

In yet another aspect of the invention, PCM30 transmission links are used as inputs.

In another aspect of the invention, PCM24 transmission links are used as inputs.

In another aspect of the invention, the control signal is transmitted via an existing controller of the transit exchange.

In still another aspect of the invention, a connection after a request from another communication network is initiated by a program installed on a

- 5 -

network server which is connected to the other communication network.

In another aspect of the invention, the other communication network is the Internet.

In another embodiment of the invention, there is a device in a transit exchange for switching a connection between two subscribers of a communication network with a common signaling channel which is independent of the information channels and with transit exchanges having at least one switching network and associated line trunk groups, the switching occurring after a request from outside of the communication network. The device includes, for example, at least one connection between two inputs for transmission links at the transit exchange by a data line and permanent allocation of at least one pair of information channels, a controller connected to the common signaling channel and which conducts on the common signaling channel a control signal having content that a connection is present on one information channel of the information channels in each case allocated to one another, which connection is switched through to one subscriber, and a connection is present on the second information channel of the information channels allocated to one another, which connection is switched through to the second subscriber, and which forwards the terminal signaling of the connection to the first subscriber to the connection to the second subscriber and from the second subscriber to the first subscriber.

In another aspect of the invention, the controller uses the signaling protocol according to the ITU-T signaling system No. 7.

In another aspect of the invention, the controller transmits the end-to-end signaling messages of the ISDN User Part (ISUP) from one connection to the other connection.

In yet another aspect of the invention, the inputs are those for PCM30 transmission links.

In another aspect of the invention, the inputs are

In another aspect of the invention, the controller is an existing controller of the transit exchange.

In another aspect of the invention, the controller is a group processor of the line trunk group.

In yet another aspect of the invention, the other communication network is the Internet.

5 In the text which follows, the invention will be explained with reference to the figures in which:

Figure 2 shows the connection between two subscribers by a third party by means of the device according to the invention.

20 DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

The invention provides a method and a device by means of which it is possible without elaborate adaptations of the transit exchanges and the modules and facilities used in them to establish a connection between two

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subscribers of the network from one point of the network after a request from a third party.

According to one embodiment of the invention, there is
5 a method for switching a connection between two subscribers in a communication network with a common signaling channel which is independent of the information channels and with transit exchanges including at least one switching network and associated
10 line trunk groups is provided, the switching being effected after the connection has been requested from a third party.

Initially, two inputs for transmission links at a
15 transit exchange are connected by a data line. This can already been done by means of a signal data line. This also results in a permanent allocation of the information data channels in pairs, for example the voice channels in a telephone network. In networks
20 operating with a synchronous digital hierarchy or a plesiochronous digital hierarchy on the transmission links or generally in the case of multiplex lines, at least one information channel of one input is permanently allocated to an information channel of the
25 other input of the transmission link via the corresponding timeslot. Naturally, it is also possible, in an ATM network, to achieve a fixed paired information channel allocation by means of such a hardware connection of the inputs of transmission links
30 by utilizing the coding and decoding methods provided by the network since for each transit exchange a transmission link, which, in turn, is connected to the exchange itself, acts in such a manner as if it were connected to an adjacent transit exchange. Thus, the
35 methods already in existence produce a fixed information channel allocation since an unambiguous defined information channel allocation must also exist between transit exchanges.

15 Finally, the incoming terminal signaling of the connection to the first subscriber in one call are forwarded to the connection to the second subscriber via the common signaling channel and conversely.

In one aspect of the invention, the ITU-T signaling

In one aspect of the invention, the ITU-T signaling

The other communication network is advantageously the Internet and the "click to dial" feature is implemented thereby.

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Figure 2, in contrast to Figure 1, shows by way of example the arrangement of a device according to the invention for switching a first subscriber 7 and a second subscriber 8 in an embodiment with request of the connection by a network server 13, for example of the Internet. The drawing also shows an embodiment in which the device according to the invention is integrated in a transit exchange 3. In a transit exchange 3 including the main modules switching network 1 and line trunk groups 2, two transmission links are connected by a data line 12 and thus at least two information channels 5 are permanently allocated to one another via the data line 12. The associated signaling channels 6 are connected to a controller (CtD controller - click to dial controller) 10. In the embodiment shown, this controller is one of the controllers already existing in the transit exchange 3 for controlling the transit exchange 3 itself. The controller 10 is connected to a network server 13 via a junction line 11. The network server 13 can then be connected to another communication network, for example the Internet. If the network server 13 then receives a request for setting up a connection between the first subscriber 7 and the second subscriber 8, it issues the instruction for this via the junction line 11 to the controller 10. The controller 10 then conducts a control signal to the signaling channel 6 that a connection is present on the information channel 5 connected to the data line 12 which is to be switched through to the first subscriber 7 and which, lastly, is connected via the switching network 1 to the first subscriber. Similarly, a connection is switched from the data line 12 to the second subscriber 8 via the switching network 1 by means of a corresponding control

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- 14 -

transmission link. In each case two of the PCM30
 accesses 22 are connected to one another by data lines
 12. The group processor 21 is at the same time the
 signal processor 10. The line trunk units 17 combine
 5 the information channels in a group switch 19 (GS).
 Four 2-MBit PCM lines of 32 information channels each
 are combined in the group switch 19 to form an 8-MBit
 line with 128 channels which are forwarded to the
 switching network 1 via the interface of the line
 10 interface unit 20. The connection is set up as already
 described above. Since the group processor 21 is
 connected to the processor of the switching network 1,
 the switch group control 15 and the central processor
 16 via internal interfaces, it can be used as
 15 controller 10. The software must be appropriately
 adapted. The instruction for setting up a connection to
 the controller 10 can also be transmitted via these
 interfaces. Using the embodiment described, it is,
 therefore, possible to establish the device according
 20 to the invention by means of two data lines 12 and a
 software supplement. In particular, subsequent
 installation in existing transit exchanges EWSD which
 are used in large numbers is also conceivable.

Description

METHOD AND DEVICE FOR SWITCHING A CONNECTION IN A
COMMUNICATION NETWORK

5

CLAIM FOR PRIORITY

This application claims priority to International
Application No. PCT/DE00/03328 which was filed in the
German language on September 25, 2000.

10

TECHNICAL FIELD OF THE INVENTION

The present invention relates to a method and to a
device for switching a connection between two
subscribers of a communication network, e.g. a
telephone network, and in particular, for switching a
15 connection from an exchange of the communication
network, ~~after a request coming from a position outside~~
~~this communication network, for example from the~~
~~Internet,~~ using the existing switching functions and
signal transmission functions of the communication
20 network.

BACKGROUND OF THE INVENTION

A ~~It is known to initiate a connection between two~~
subscribers of a communication network can be initiated
25 by the two subscribers being called separately in each
case from a special terminal located outside the
communication network, using a computer as automatic
operator. As soon as a connection exists to both
subscribers and the special terminal, the information
30 signals and the control signals for service indicators,
if any, are then transmitted by this terminal from one
connection to the other and conversely. Such a
switching method is used in telephone networks in call
centers. The disadvantageous factor is the relatively
35 complex implementation and the necessary capacity for
high performance required from the special terminal.

Such switching of a connection in telephone networks is
of particular interest for the function of "click to

It is also desirable to have a capability of integrating the "click to dial" service with the simplest possible means also in existing network nodes in the case where a network operator itself offers this service.

Figure 1 shows in accordance with the prior art the switching of a connection in a communication network by a computer connected to the communication network as terminal which is used as automatic operator 9. The communication network includes transit exchanges 3 and some access exchanges 4. An exchange center can have both functions and can be both transit exchange 3 and access exchange 4. The transit exchanges are connected to one another by means of transmission links which have at least one information channel 5 and at least one separate signaling channel 6. Figure 1 shows the connection between a first subscriber 7 and a second subscriber 8 by the automatic operator 9. The automatic operator 9 first dials both subscribers 7, 8 in two separate connections via two terminal lines 14. In the example shown, both connections initially take the same path. From the access exchange 4 of the automatic operator 9, they first reach the same transit exchange 3. Depending on the subscriber 7, 8 dialed, the connections can also take separate paths through the communication network after the access exchange 4 to which the automatic operator 9 is connected. In the transit exchange 3, the two connections are switched through completely independently as two different ones. This happens by the information channels 5 and signaling channels 6 being conducted via line trunk groups 2 in the transit exchange 3 and being switched through in a switching network 1 according to the control signals in the signaling channels 6.

If the two connections to the first subscriber 7 and second subscriber 8 have been established, the automatic operator 9 connects the two connections.

SUMMARY OF THE INVENTION

In one embodiment of the invention, there is a method for switching ~~The invention is, therefore, based on the object of providing a method and a device by means of which it is possible without elaborate adaptations of the transit exchanges and the modules and facilities used in them to establish a connection between two subscribers of~~ a communication network with a common signaling channel which is independent of the information channels and with transit exchanges having at least one switching occurring network and associated line trunk groups, the switching being effected after a request from outside of the communication network. The method includes, for example, connecting two inputs for transmission links at a transit exchange by a data line and permanently allocating at least one pair of information channels. transmitting a control signal on the common signaling channel such that a connection to the first subscriber is switched through from one information channel of the information channels in each case allocated to one another, and a connection is switched through to the second subscriber from the second information channel of the information channels allocated to one another, and forwarding a terminal signaling of the connection to the first subscriber to the connection to the second subscriber via the common signaling channel, and forwarding a terminal signaling of the connection to the second subscriber to the connection to the first subscriber via the common signaling channel.

In another aspect of the invention, the signaling on the common signaling channel is in accordance with the ITU-T signaling system No. 7.

In another aspect of the invention, the signaling messages of an ISDN User Part (ISUP) are transmitted from the first connection to the second connection and from the second connection to the first connection via the ITU-T signaling system No. 7.

In yet another aspect of the invention, PCM30

transmission links are used as inputs.

In another aspect of the invention, PCM24 transmission links are used as inputs.

In another aspect of the invention, the control signal is transmitted via an existing controller of the transit exchange.

In still another aspect of the invention, a connection after a request from another communication network is initiated by a program installed on a network server which is connected to the other communication network.

In another aspect of the invention, the other communication network is the Internet.

In another embodiment of the invention, there is a device in a transit exchange for switching a connection between two subscribers of a communication network with a common signaling channel which is independent of the information channels and with transit exchanges having at least one switching network and associated line trunk groups, the switching occurring after a request from outside of the communication network. The device includes, for example, at least one connection between two inputs for transmission links at the transit exchange by a data line and permanent allocation of at least one pair of information channels, a controller connected to the common signaling channel and which conducts on the common signaling channel a control signal having content that a connection is present on one information channel of the information channels in each case allocated to one another, which connection is switched through to one subscriber, and a connection is present on the second information channel of the information channels allocated to one another, which connection is switched through to the second subscriber, and which forwards the terminal signaling of the connection to the first subscriber to the connection to the second subscriber and from the second subscriber to the first subscriber.

In another aspect of the invention, the controller

Figure 3 shows an embodiment according to the invention of the device in a transit exchange EWSD.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

5 The invention provides a method and a device by means of which it is possible without elaborate adaptations of the transit exchanges and the modules and facilities used in them to establish a connection between two subscribers of the network from one point of the
10 network after a request from a third party.

~~According to the invention, the object described above is achieved by the features of the independent claims 1 and 9. The dependent claims advantageously develop the~~
15 ~~basic concept of the invention and provide advantageous embodiments and methods.~~

~~According to the invention, according to claim 1,~~
According to one embodiment of the invention, there is
20 a method for switching a connection between two subscribers in a communication network with a common signaling channel which is independent of the information channels and with transit exchanges
~~consisting of in each case~~ including at least one
25 switching network and associated line trunk groups is provided, the switching being effected after the connection has been requested from a third party.

Initially, two inputs for transmission links at a
30 transit exchange are connected by a data line. This can already been done by means of a signal data line. This also results in a permanent allocation of the information data channels in ~~each case in~~ pairs, for example the voice channels in a telephone network. In
35 networks operating with a synchronous digital hierarchy or a plesiochronous digital hierarchy on the transmission links or generally in the case of multiplex lines, ~~in each case~~ at least one information channel of one input is permanently allocated to an

in existence.

According to the invention, a connection can be initiated in a similar manner by a request from another communication network. For this purpose, a program installed on a computer which is connected to ~~this~~ the other communication network issues the instruction for setting up the connection. In particular, the "click to dial" feature can thus be implemented if the other communication network is the Internet.

~~According to claim 9 of the invention~~ In one embodiment, a device in a transit exchange is also provided for switching a connection between two subscribers in a communication network. The communication network exhibits a common signaling channel which is independent of the information channels. Furthermore, this is a communication network with transit exchanges consisting of in each case at least one switching network and associated line trunk groups.

At least one pair of information channels is permanently allocated for information data by at least one connection between two inputs for transmission links at the transit exchange by means of a data line.

Furthermore, the device ~~consists of~~ includes a controller (CTD controller) which is connected to the common signaling channel and which conducts on the common signaling channel a control signal having the content that a connection is present on one information channel of the information channels in each case permanently allocated to one another, which connection ~~must be~~ is switched through to one subscriber, and that a connection is present on the second information channel of the information channels in each case permanently allocated to one another, which connection ~~must be~~ is switched through to the second subscriber.

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the device in a transit exchange of the EWSD system. The inputs are then connected by two inputs for PCM lines in each case being connected at one line trunk group (LTG-C).

5

The group processor of the access section of the transit exchange according to the EWSD system can be provided as controller (CTD controller). Advantageously, no external additional controller is then needed since the one existing in the line trunk group has sufficient capacity also to serve as controller of the device proposed here.

10

The controller can be connected to a computer which, in turn, is connected to another communication network in order to initiate the connection by a program on this computer after a request from the other communication network.

15

The other communication network is advantageously the Internet and the "click to dial" feature is implemented thereby.

20

~~In the text which follows, the invention will be explained with reference to figures 1 and 2, in which:~~

25

~~figure 1 shows in a diagram the connection of two subscribers by a third party according to the prior art, by a computer as terminal of the network.~~

30

~~figure 2 shows in a diagram the connection between two subscribers by a third party by means of the device according to the invention,~~

35

~~figure 3 shows in a greatly simplified manner an embodiment according to the invention of the device in a transit exchange EWSD.~~

~~Figure 1 diagrammatically shows in accordance with the~~

prior art the switching of a connection in a communication network by a computer connected to the communication network as terminal which is used as automatic operator 9. The communication network consists of transit exchanges 3 and some access exchanges 4. An exchange center can have both functions and can be both transit exchange 3 and access exchange 4. The transit exchanges are connected to one another by means of transmission links which have at least one information channel 5 and at least one separate signaling channel 6. Figure 1 shows the connection between a first subscriber 7 and a second subscriber 8 by the automatic operator 9. The automatic operator 9 first dials both subscribers 7, 8 in two separate connections via two terminal lines 14. In the example shown, both connections initially take the same path. From the access exchange 4 of the automatic operator 9, they first reach the same transit exchange 3. Depending on the subscriber 7, 8 dialed, the connections can also take separate paths through the communication network after the access exchange 4 to which the automatic operator 9 is connected. In the transit exchange 3, the two connections are switched through completely independently as two different ones. This happens by the information channels 5 and signaling channels 6 being conducted via line trunk groups 2 in the transit exchange 3 and being switched through in a switching network 1 according to the control signals in the signaling channels 6.

If the two connections to the first subscriber 7 and second subscriber 8 have been established, the automatic operator 9 connects the two connections.

Figure 2, in contrast to Figure 1, shows by way of example the arrangement of a device according to the invention for switching a first subscriber 7 and a second subscriber 8 in an embodiment with request of the connection by a network server 13, for example of

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the Internet. The drawing also shows an embodiment in
 which the device according to the invention is
 integrated in a transit exchange 3. In a transit
 exchange 3 ~~consisting of~~ including the main modules
 5 switching network 1 and line trunk groups 2, two
 transmission links are connected by a data line 12 and
 thus at least two information channels 5 are
 permanently allocated to one another via the data line
 12. The associated signaling channels 6 are connected
 10 to a controller (CtD controller - click to dial
 controller) 10. In the embodiment shown, this
 controller is one of the controllers already existing
 in the transit exchange 3 for controlling the transit
 exchange 3 itself. The controller 10 is connected to a
 15 network server 13 via a junction line 11. The network
 server 13 can then be connected to another
 communication network, for example the Internet. If the
 network server 13 then receives a request for setting
 up a connection between the first subscriber 7 and the
 20 second subscriber 8, it issues the instruction for this
 via the junction line 11 to the controller 10. The
 controller 10 then conducts a control signal to the
 signaling channel 6 that a connection is present on the
 information channel 5 connected to the data line 12
 25 which is to be switched through to the first subscriber
 7 and which, lastly, is connected via the switching
 network 1 to the first subscriber. Similarly, a
 connection is switched from the data line 12 to the
 second subscriber 8 via the switching network 1 by
 30 means of a corresponding control signal on the
 signaling channel 6. Since the transit exchange 3 sees
 itself as an adjacent transit exchange via the
 information channels 5 and the data line 12, the
 information channels 5 are permanently allocated to one
 35 another via the synchronizing devices and methods
 normally existing between the transit exchanges and
 transmit the information data. The controller 10 also
 transmits, on the signaling channel 6, terminal
 signaling messages coming from the connection to the

- 15 -

first subscriber 7 to the connection to the second subscriber 8 and conversely.

Compared with the prior art, the embodiment of the device according to the invention described has the advantage that it can be set up with little expenditure and also subsequently in an existing transit exchange 3. It is only necessary to install the data line 12, to supplement an existing controller by software adaptation to the controller 10 and to set up an interface as junction line 11 to a network server 13. This can also be done by utilizing existing system interfaces to the outside.

Figure 3 shows in a simplified manner a further embodiment according to the invention of the device described above in a transit exchange of the EWSD type.

A transit exchange of the EWSD type consists of a switching network 1 (SN) and at least one line trunk group 2 (LTG). In this case, four are shown, one of which is drawn enlarged and with its modules. The switching network 1 has, for the control function, its own controller, the switch group control 15 (SGC). A line trunk group 2 is built up of line trunk units 17 (DIU, LTU), a group switch 19 and a line interface unit 20. If the line trunk group 2 is designed for PCM30 transmission links as in the embodiment shown, the line trunk group 2 has four line trunk units 17. Each line trunk unit 17 provides a PCM30 access 22 for a transmission link. In each case two of the PCM30 accesses 22 are connected to one another by data lines 12. The group processor 21 is at the same time the signal processor 10. The line trunk units 17 combine the information channels in a group switch 19 (GS). Four 2-MBit PCM lines of 32 information channels each are combined in the group switch 19 to form an 8-MBit line with 128 channels which are forwarded to the switching network 1 via the interface of the line

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interface unit 20. The connection is set up as already described above. Since the group processor 21 is connected to the processor of the switching network 1, the switch group control 15 and the central processor
5 16 via internal interfaces, it can be used as controller 10. The software must be appropriately adapted. The instruction for setting up a connection to the controller 10 can also be transmitted via these interfaces. Using the embodiment described, it is,
10 therefore, possible to establish the device according to the invention by means of two data lines 12 and a software supplement. In particular, subsequent installation in existing transit exchanges EWSD which are used in large numbers is also conceivable.

70/089318

JC15 Rec'd PCT/PTO 29 MAR 2002

Description

Method and device for switching a connection in a communication network

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The present invention relates to a method and to a device for switching a connection between two subscribers of a communication network, e.g. a telephone network, from an exchange of the communication network, after a request coming from a position outside this communication network, for example from the Internet, using the existing switching functions and signal transmission functions of the communication network.

15

It is known to initiate a connection between two subscribers of a communication network by the two subscribers being called separately in each case from a special terminal located outside the communication network, a computer as automatic operator. As soon as a connection exists to both subscribers and the special terminal, the information signals and the control signals for service indicators, if any, are then transmitted by this terminal from one connection to the other and conversely. Such a switching method is used in telephone networks in call centers. The disadvantageous factor is the relatively complex implementation and the necessary capacity for high performance required from the special terminal.

30

Such switching of a connection in telephone networks is of particular interest for the function of "click to dial" out of the Internet. "Click to dial" is an offer in the Internet in which a user of the Internet is provided with the possibility of setting up a connection directly by instruction between two subscriber numbers of the telephone network, the telephone numbers of which are input or retrieved from a database. Both lines involved must be dialed for this

35

connection directly by instruction between two subscriber numbers of the telephone network, the telephone numbers of which are input or retrieved from a database. Both lines involved must be dialed for this

- 2 -

and connected to one another. In most cases, one subscriber is the Internet user himself.

If this function is implemented similar to the call
5 switching in call centers, a controller operating as
terminal of the communication network must initiate two
connections via the communication network here, too,
and, as soon as both connections exist, the controller
must forward the information data, that is to say the
10 digitized voice or other data to be transmitted, of one
connection via the other one and conversely. To
maintain the features offered by the communication
system used in the communication network, e.g. the
service indicators of the ISDN in the telephone
15 network, for both subscribers of the initially
different connections, these, too, must be transferred
from one connection to the second one and adapted, if
necessary. This creates considerable expenditure since
the computer receives the service indicators like a
20 terminal and forwards them again to the second
corresponding connection like a terminal. Additional
computing effort is produced by the fact that some data
have to be converted and adapted. In the ISDN, for
example, it is possible to indicate the telephone
25 number of the other subscriber by means of the CLIP
feature. Since there are two connections from the point
of view of the communication network, the second call
must receive from the controller the indicator of the
telephone number of the first call instead of that
30 belonging to the controller, in order to guarantee this
feature.

It is also desirable to have a capability of
integrating the "click to dial" service with the
35 simplest possible means also in existing network nodes
in the case where a network operator itself offers this
service.

The invention is, therefore, based on the object of

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providing a method and a device by means of which it is possible without elaborate adaptations of the transit exchanges and the modules and facilities used in them to establish a connection between two subscribers of
 5 the network from one point of the network after a request from a third party.

According to the invention, the object described above is achieved by the features of the independent claims 1
 10 and 9. The dependent claims advantageously develop the basic concept of the invention and provide advantageous embodiments and methods.

According to the invention, according to claim 1, a
 15 method for switching a connection between two subscribers in a communication network with a common signaling channel which is independent of the information channels and with transit exchanges consisting of in each case at least one switching
 20 network and associated line trunk groups is provided, the switching being effected after the connection has been requested from a third party.

Initially, two inputs for transmission links at a
 25 transit exchange are connected by a data line. This can already been done by means of a signal data line. This also results in a permanent allocation of the information data channels in each case in pairs, for example the voice channels in a telephone network. In
 30 networks operating with a synchronous digital hierarchy or a plesiochronous digital hierarchy on the transmission links or generally in the case of multiplex lines, in each case at least one information channel of one input is permanently allocated to an
 35 information channel of the other input of the transmission link via the corresponding timeslot. Naturally, it is also possible, in an ATM network, to achieve a fixed paired information channel allocation by means of such a hardware connection of the inputs of

- 5 -

obtained without further translation of the signaling. Transmission of the information data does not require any expenditure since the transit exchange in the method according to the invention sees itself as an
 5 apparent adjacent transit exchange and, as a result, ensures synchronization of the information channels and transmission of the information data by means of the preexisting methods and devices.

10 According to claim 2, the ITU-T signaling system No. 7 is advantageously used for the signaling on the common signaling channel.

According to claim 3, the signaling messages of the
 15 ISDN User Part (ISUP) are advantageously transmitted from the first connection to the second connection and conversely via the ITU-T signaling system No. 7.

The control signals are advantageously generated by an
 20 existing controller of the transit exchange and forwarded to the common signaling channel. As a result, the method described can be applied with little expenditure by a corresponding program without needing an additional controller if the computing power of
 25 existing controllers is adequate.

Furthermore, it is advantageous to use as inputs those for transmission links of the PCM30 or PCM 24 type of construction. Since these two types of transmission
 30 links are in most cases used in existing transit exchanges, corresponding inputs exist. As a result, it is possible in a relatively simple way to apply the method described to transit exchanges already in existence.

35 According to the invention, a connection can be initiated in manner by a request from another communication network. For this purpose, a program installed on a computer which is connected to this

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and can be both transit exchange 3 and access exchange 4. The transit exchanges are connected to one another by means of transmission links which have at least one information channel 5 and at least one separate signaling channel 6. Figure 1 shows the connection between a first subscriber 7 and a second subscriber 8 by the automatic operator 9. The automatic operator 9 first dials both subscribers 7, 8 in two separate connections via two terminal lines 14. In the example shown, both connections initially take the same path. From the access exchange 4 of the automatic operator 9, they first reach the same transit exchange 3. Depending on the subscriber 7, 8 dialed, the connections can also take separate paths through the communication network after the access exchange 4 to which the automatic operator 9 is connected. In the transit exchange 3, the two connections are switched through completely independently as two different ones. This happens by the information channels 5 and signaling channels 6 being conducted via line trunk groups 2 in the transit exchange 3 and being switched through in a switching network 1 according to the control signals in the signaling channels 6.

If the two connections to the first subscriber 7 and second subscriber 8 have been established, the automatic operator 9 connects the two connections.

Figure 2, in contrast, shows by way of example the arrangement of a device according to the invention for switching a first subscriber 7 and a second subscriber 8 in an embodiment with request of the connection by a network server 13, for example of the Internet. The drawing also shows an embodiment in which the device according to the invention is integrated in a transit exchange 3. In a transit exchange 3 consisting of the main modules switching network 1 and line trunk groups 2, two transmission links are connected by a data line 12 and thus at least two information channels 5 are

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permanently allocated to one another via the data line 12. The associated signaling channels 6 are connected to a controller (CtD controller - click to dial controller) 10. In the embodiment shown, this controller is one of the controllers already existing in the transit exchange 3 for controlling the transit exchange 3 itself. The controller 10 is connected to a network server 13 via a junction line 11. The network server 13 can then be connected to another communication network, for example the Internet. If the network server 13 then receives a request for setting up a connection between the first subscriber 7 and the second subscriber 8, it issues the instruction for this via the junction line 11 to the controller 10. The controller 10 then conducts a control signal to the signaling channel 6 that a connection is present on the information channel 5 connected to the data line 12 which is to be switched through to the first subscriber 7 and which, lastly, is connected via the switching network 1 to the first subscriber. Similarly, a connection is switched from the data line 12 to the second subscriber 8 via the switching network 1 by means of a corresponding control signal on the signaling channel 6. Since the transit exchange 3 sees itself as an adjacent transit exchange via the information channels 5 and the data line 12, the information channels 5 are permanently allocated to one another via the synchronizing devices and methods normally existing between the transit exchanges and transmit the information data. The controller 10 also transmits, on the signaling channel 6, terminal signaling messages coming from the connection to the first subscriber 7 to the connection to the second subscriber 8 and conversely.

35

Compared with the prior art, the embodiment of the device according to the invention described has the advantage that it can be set up with little expenditure and also subsequently in an existing transit exchange

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3. It is only necessary to install the data line 12, to supplement an existing controller by software adaptation to the controller 10 and to set up an interface as junction line 11 to a network server 13.
 5 This can also be done by utilizing existing system interfaces to the outside.

Figure 3 shows in a simplified manner a further embodiment according to the invention of the device
 10 described above in a transit exchange of the EWSD type.

A transit exchange of the EWSD type consists of a switching network 1 (SN) and at least one line trunk group 2 (LTG). In this case, four are shown, one of
 15 which is drawn enlarged and with its modules. The switching network 1 has, for the control function, its own controller, the switch group control 15 (SGC). A line trunk group 2 is built up of line trunk units 17 (DIU,LTU), a group switch 19 and a line interface unit
 20 20. If the line trunk group 2 is designed for PCM30 transmission links as in the embodiment shown, the line trunk group 2 has four line trunk units 17. Each line trunk unit 17 provides a PCM30 access 22 for a transmission link. In each case two of the PCM30
 25 accesses 22 are connected to one another by data lines 12. The group processor 21 is at the same time the signal processor 10. The line trunk units 17 combine the information channels in a group switch 19 (GS). Four 2-MBit PCM lines of 32 information channels each
 30 are combined in the group switch 19 to form an 8-MBit line with 128 channels which are forwarded to the switching network 1 via the interface of the line interface unit 20. The connection is set up as already described above. Since the group processor 21 is
 35 connected to the processor of the switching network 1, the switch group control 15 and the central processor 16 via internal interfaces, it can be used as controller 10. The software must be appropriately adapted. The instruction for setting up a connection to

the controller 10 can also be transmitted via these interfaces. Using the embodiment described, it is, therefore, possible to establish the device according to the invention by means of two data lines 12 and a software supplement. In particular, subsequent installation in existing transit exchanges EWSD which are used in large numbers is also conceivable.

Patent claims

1. A method for switching a connection between two subscribers (7, 8) of a communication network with a common signaling channel (6) which is independent of the information channels (5, 5a, 5b) and with transit exchanges (3) consisting of in each case at least one switching network (1) and associated line trunk groups (2), the switching being effected after a request from outside this communication network, comprising the following steps

a) connecting two inputs for transmission links at a transit exchange (3) by a data line (12) and permanently allocating at least one pair of information channels (5a, 5b).

b) Transmitting a control signal on the common signaling channel (6) which has the following effect:

that a connection to the first subscriber (7) is switched through from one information channel (5a) of the information channels (5a, 5b) in each case permanently allocated to one another, and

that a connection is switched through to the second subscriber (8) from the second information channel (5b) of the information channels (5a, 5b) permanently allocated to one another.

c) Forwarding the terminal signaling of the connection to the first subscriber to the connection to the second subscriber via the common signaling channel (6) and conversely.

2. The method as claimed in claim 1, characterized in that the signaling on the common signaling channel (6) is effected in accordance with the ITU-T signaling system No. 7.

3. The method as claimed in claim 2, characterized in that

a) at least one connection between two inputs for transmission links at the transit exchange by means of a data line (12) and permanent allocation of at least

one pair of information channels (5a, 5b).

b) A controller (10) (CtD controller) which is connected to the common signaling channel (6) and which conducts on the common signaling channel (6) a control signal having the content that a connection is present on one information channel (5a) of the information channels (5a, 5b) in each case permanently allocated to one another, which connection must be switched through to one subscriber (7), and that a connection is present on the second information channel (5b) of the information channels (5a, 5b) permanently allocated to one another, which connection must be switched through to the second subscriber (8), and which forwards the terminal signaling of the connection to the first subscriber (7) to the connection to the second subscriber (8) and conversely.

10. The device as claimed in claim 9, characterized in that the controller (10) uses the signaling protocol according to the ITU-T signaling system No. 7.

11. The device as claimed in claim 10, characterized in that the controller (10) transmits the end-to-end signaling messages of the ISDN User Part (ISUP) from one connection to the other one and conversely.

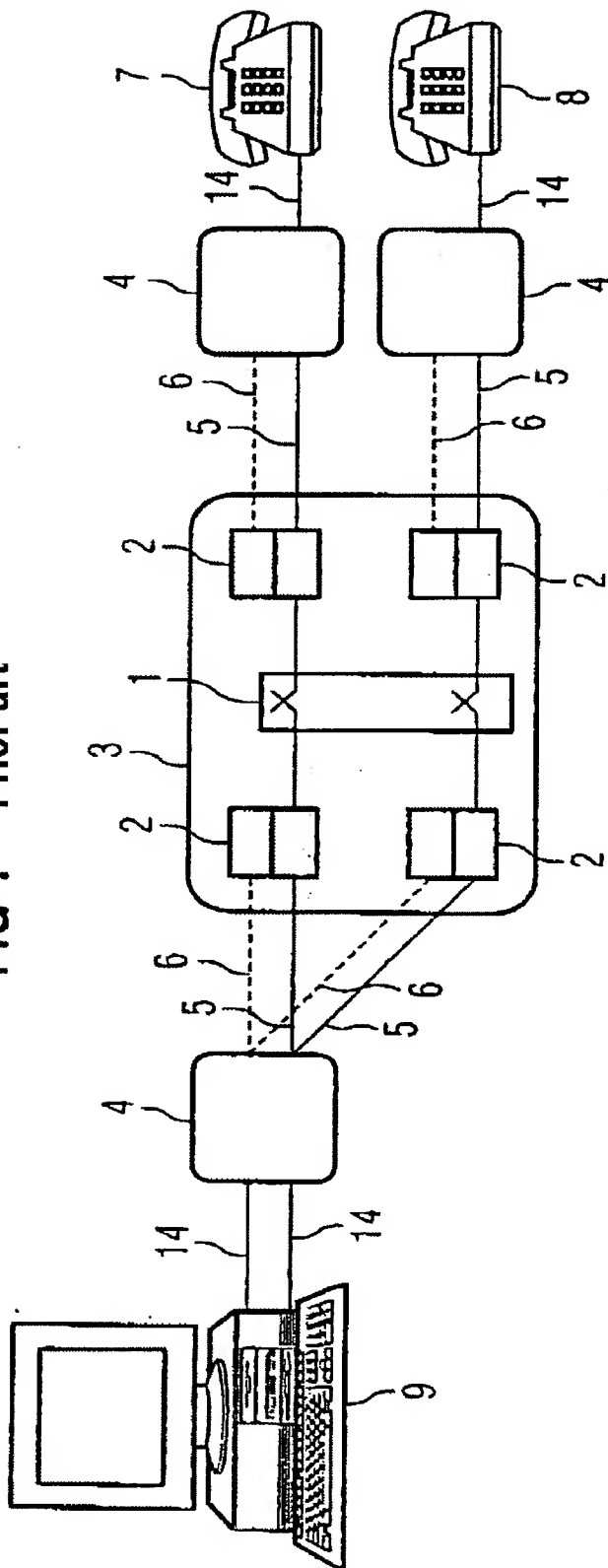
12. The device as claimed in one of claims 9 to 11, characterized in that the inputs are those for PCM30 transmission links.

13. The device as claimed in one of claims 9 to 11, characterized in that the inputs are those for PCM24 transmission links.

14. The device as claimed in one of claims 9 to 13, characterized in that the controller (10) (CTD controller) is an existing controller of the transit exchange (3).

Figure 2

FIG 1 Prior art



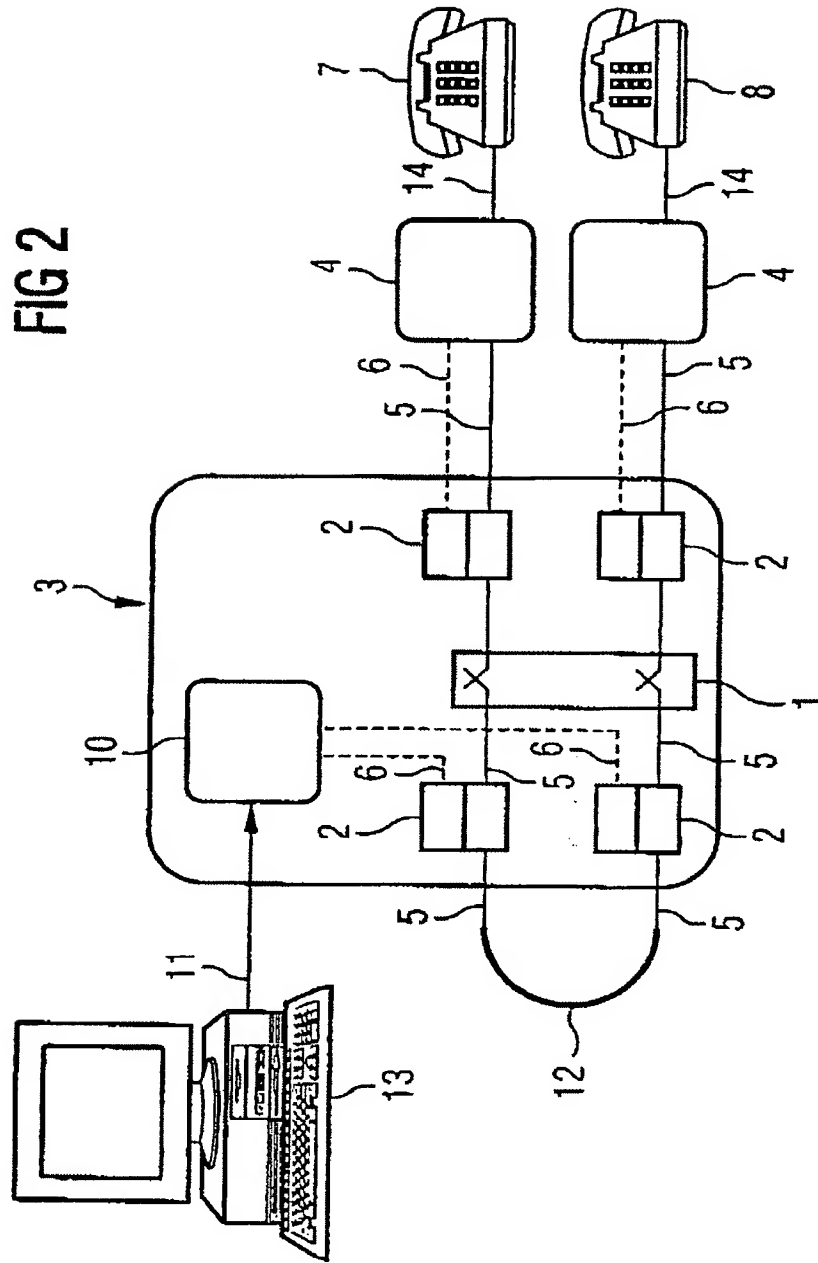
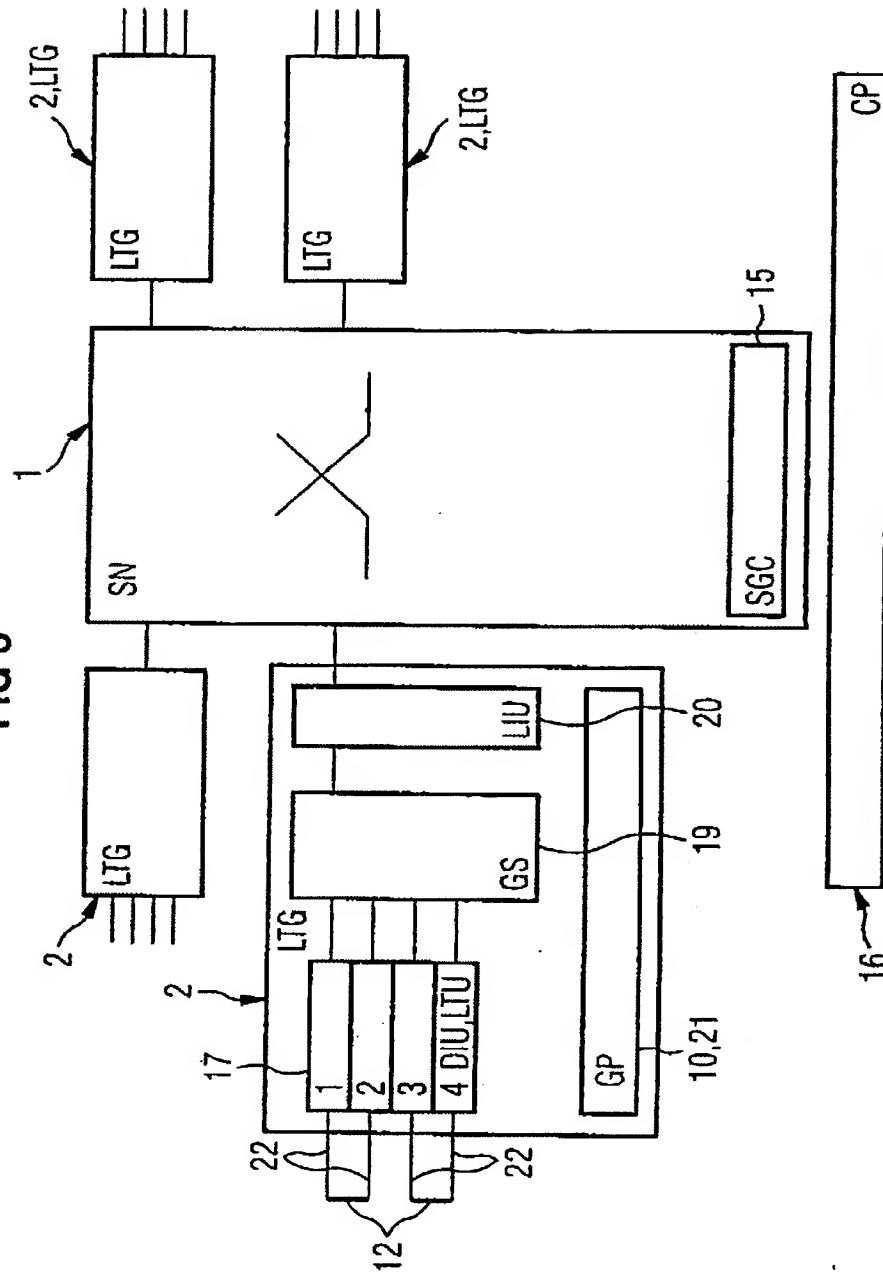


FIG 3



Declaration and Power of Attorney For Patent Application

Erklärung Für Patentanmeldungen Mit Vollmacht

German Language Declaration

Als nachstehend benannter Erfinder erkläre ich hiermit an Eides Statt:

As a below named inventor, I hereby declare that:

dass mein Wohnsitz, meine Postanschrift, und meine Staatsangehörigkeit den im Nachstehenden nach meinem Namen aufgeführten Angaben entsprechen,

My residence, post office address and citizenship are as stated below next to my name,

dass ich, nach bestem Wissen der ursprüngliche, erste und alleinige Erfinder (falls nachstehend nur ein Name angegeben ist) oder ein ursprünglicher, erster und Miterfinder (falls nachstehend mehrere Namen aufgeführt sind) des Gegenstandes bin, für den dieser Antrag gestellt wird und für den ein Patent beantragt wird für die Erfindung mit dem Titel:

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled

Verfahren und Vorrichtung zur Vermittlung einer Verbindung in einem Kommunikationsnetz

Method and device for switching connections in a communication network

deren Beschreibung

the specification of which

(zutreffendes ankreuzen)

(check one)

☐ hier beigefügt ist.

☐ is attached hereto.

☒ am 25.09.2000 als

☒ was filed on 25.09.2000 as

PCT internationale Anmeldung

PCT international application

PCT Anwendungsnummer PCT/DE00/03328

PCT Application No. PCT/DE00/03328

eingereicht wurde und am

and was amended on

abgeändert wurde (falls tatsächlich abgeändert).

(if applicable)

Ich bestätige hiermit, dass ich den Inhalt der obigen Patentanmeldung einschliesslich der Ansprüche durchgesehen und verstanden habe, die eventuell durch einen Zusatzantrag wie oben erwähnt abgeändert wurde.

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims as amended by any amendment referred to above.

Ich erkenne meine Pflicht zur Offenbarung irgendwelcher Informationen, die für die Prüfung der vorliegenden Anmeldung in Einklang mit Absatz 37, Bundesgesetzbuch, Paragraph 1.56(a) von Wichtigkeit sind, an.

I acknowledge the duty to disclose information which is material to the examination of this application in accordance with Title 37, Code of Federal Regulations, §1.56(a).

Ich beanspruche hiermit ausländische Prioritätsvorteile gemäss Abschnitt 35 der Zivilprozessordnung der Vereinigten Staaten, Paragraph 119 aller unten angegebenen Auslandsanmeldungen für ein Patent oder eine Erfindersurkunde, und habe auch alle Auslandsanmeldungen für ein Patent oder eine Erfindersurkunde nachstehend gekennzeichnet, die ein Anmeldedatum haben, das vor dem Anmeldedatum der Anmeldung liegt, für die Priorität beansprucht wird.

I hereby claim foreign priority benefits under Title 35, United States Code, §119 of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on which priority is claimed:

German Language Declaration

Prior foreign applications
Priorität beansprucht

Priority Claimed

19946658.0

DE

29.09.1999

☒

☐

(Number)

(Country)

(Day Month Year Filed)

Yes

No

(Nummer)

(Land)

(Tag Monat Jahr eingereicht)

Ja

Nein

(Number)

(Country)

(Day Month Year Filed)

☐

☐

(Nummer)

(Land)

(Tag Monat Jahr eingereicht)

Yes

No

(Number)

(Country)

(Day Month Year Filed)

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(Nummer)

(Land)

(Tag Monat Jahr eingereicht)

Yes

No

Ich beanspruche hiermit gemäss Absatz 35 der Zivilprozessordnung der Vereinigten Staaten, Paragraph 120, den Vorzug aller unten aufgeführten Anmeldungen und falls der Gegenstand aus jedem Anspruch dieser Anmeldung nicht in einer früheren amerikanischen Patentanmeldung laut dem ersten Paragraphen des Absatzes 35 der Zivilprozessordnung der Vereinigten Staaten, Paragraph 122 offenbart ist, erkenne ich gemäss Absatz 37, Bundesgesetzbuch, Paragraph 1.56(a) meine Pflicht zur Offenbarung von Informationen an, die zwischen dem Anmeldedatum der früheren Anmeldung und dem nationalen oder PCT internationalen Anmeldedatum dieser Anmeldung bekannt geworden sind.

I hereby claim the benefit under Title 35, United States Code, §120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code, §122, I acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, §1.56(a) which occurred between the filing date of the prior application and the national or PCT international filing date of this application.

PCT/DE00/03328

(Application Serial No.)
(Anmeldeseriennummer)

25.09.2000

(Filing Date D, M, Y)
(Anmeldedatum T, M, J)

anhängig

(Status)
(patentiert, anhängig,
aufgegeben)

pending

(Status)
(patented, pending,
abandoned)

(Application Serial No.)
(Anmeldeseriennummer)

(Filing Date D,M,Y)
(Anmeldedatum T, M, J)

(Status)
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German Language Declaration

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